

LETTERS TO PROGRESS IN PHYSICS

An Eidetic Reflex and Moment of Breakthrough in Time and Scientific Creation: 10 Years of Progress in Physics, 100 Years of General Relativity, and the Zelmanov Cosmological Group

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We celebrate the first 10-year momentous span of the solid body of critical scientific results and efforts delivered by the visionary editorial and founding team of the pioneering open new-millennium journal for advanced studies in theoretical and experimental physics, mathematics, astronomy, and cosmology, *Progress in Physics* (see the Editor-in-Chief's message: "Progress in Physics: 10 years in Print"), behind which is the core scientists and guardians of universal scientific creation, scientific revolution, and scientific-intellectual freedom and ethics: the few core scientists of the quintessential Zelmanov Cosmological Group, such as the founding editors and scientific creators Dmitri Rabounski and Larissa Borissova.

The Zelmanov Cosmological Group, which is also behind *The Abraham Zelmanov Journal* for General Relativity, gravitation, and cosmology, dedicates itself to the profound and extensive scope and depth of the works of the master theoretician "par excellence" of the Soviet-era general relativistic and cosmological school, Abraham Leonidovich Zelmanov, and to the most unique problems and possible extensions of General Relativity in general. Abraham Zelmanov's profundity "sine qua non" is reflected in the singular creation of the theories of chronometric, kinematic, and orthometric (monad) formalism in General Relativity, the Infinite Relativity Principle, the Anthropic Principle, the extensive classification of all possible cosmological models in the space-time of General Relativity (the Zelmanov Classification, including the possibility of absolute reference frames in a deforming, rotating, gravitating closed finite Universe), and many others (see the website of *The Abraham Zelmanov Journal* for details, and in particular the 2012 foreword to the book *Particles Here and Beyond the Mirror*). So, Zelmanov's theoretical mastery singularly encompasses the general fully non-linear, anisotropic, inhomogeneous, anholonomic, non-simply-connected space-time structure (and sub-structure) of General Relativity and the fabric of the cosmos, achieving the unification of the underlying structure of space-time, reference frame systems, and the fundamental observer. Zelmanov's few students and theoretical inheritors — such as Dmitri Rabounski and Larissa Borissova — have thereby preserved and extended his scientific and philosophical ideals as a whole, comprehensive, unitive scientific legacy: a singular univocity — "Zelmanovian Universum" — in the form of an ideologically most

unique and versatile platform for the most singular kind of meta-science and scientific creation, which is the embryo of the present Zelmanov Cosmological Group.

In the background of such unique origination, the general fundamental physics journal *Progress in Physics*, with a substantial portion of publications in General Relativity and differential geometry — in common with *The Abraham Zelmanov Journal*, is dedicated mostly to original, profound, critical, and challenging scientific works that potentially engage with the overall, far-reaching horizons and verizons of theoretical and experimental physics, mathematics, astronomy/cosmology, and of science as a whole, thereby expanding and synthesizing new scientific landscapes for both the present and the future. This is done mostly by identifying the pertinent objective quality and originality of the idea(s) in a submitted scientific work and the first and foremost crucial identification of the author as an essentially independent creative mind (whether specifically affiliated or not) and as a true person of integrity and clarity, therefore isolating the process of scientific judgement infinitely and decisively from the pervasively corruption-mongering, business-minded, pseudo-scientific (so, pseudo-objective) politics of typical modern academic practice and science administration (i.e., "big-wig scientism"). In specific cases where the editors and expert peer reviewers (who dare be non-anonymous) do not agree with the ideology and content of a submitted paper, a fidelity to pure scientific-intellectual freedom is still maintained as much as possible in the publication of the said work, as long as the basic technicality and competence (such as the mathematics and logical reasoning) is fulfilled. This is also true for some tremendous-looking extremely short papers that can subtly serve as an impetus for reflection and future scientific inspiration: they can be so short and still publishable in view of inspiring some pertinent new ideas in the future.

A word on a better peer-review system is at hand: above all, the journal categorically and distinctly promotes original thinkers and original scientific creators, along with fundamentally improving and transcending the largely deficient anonymous peer-review system, thus often allowing a work to be published with the potential for an on-going open peer-review (in the full critical vastness of time and space as regards judgement and validation): such as witnessed in the

forced, pioneering open peer-review case of Grisha Perelman's ground-breaking works on Ricci flow, manifold surgery, and the Poincaré conjecture. Thus, the journal employs a unique, more substantial form of peer-review system covering both immediate (pre-publication) and open-to-future-validation fully substantiated peer-review models. The journal does not welcome typical celebrity popularization and "celebrity fetishism/worship". Thus, it does not endorse exercising scientific judgement based on mere consensus and popularity, which is the malodorous, rotten, decadent business of politics and pseudo-science arising from the fact that there are too many people nowadays claiming to be "career scientists" (while careerism and science are most certainly two different things by way of subtle logical discernment) while essentially they are at large socially, inter-subjectively active opportunists and imitators. Such is to be compared to Einstein's time when scientists were truly still a rare breed or species — or say, before World War II, a war that changed so many ways of doing things in science and life, in science especially with the hijacking of some old journals and institutions by a plethora of powerful pseudo-scientists and pervasive mediocrity: certainly Einstein would not have survived today's popularity-concocting, narrow-minded, overly pretentious, intrinsically and extrinsically flawed scientific administration laden with closed-minded and pathetically rigid apathy against fundamental scientific novelty, individuality, and originality.

The common board of *Progress in Physics* and *The Abraham Zelmanov Journal* therefore comprises and welcomes scientific pioneers, as ethically liberal-democratic and inter-disciplinarily universal as possible: this, while the said board consists mostly of theoreticians and scientific creators in General Relativity, cosmology, and differential geometry at the heart of the Zelmanov Cosmological Group. While the journal is hosted by the said general relativists and differential geometers, it does not oppose alternative views: it acknowledges the two kinds of "alternative" (not one): the categorically superior "alternative" and the simple (ordinary) "alternative" (which can be either inferior or relatively on-par at times). Consequently, it promotes the fully open discussion of categorically different (often opposing) scientific views and ontologies, thus covering both the substance and event of all possible ideological presentations and representations.

In conducting a superior, alternative form of scientific peer-review, the board is also helped a great deal in dealing with radical, paradoxical, universal, inter-disciplinary scientific submissions and reasoning by the Smarandache Neutrosophy Group that extends the content, expression, and scope of logic and dialectics. This then is meant to be a fundamental platform for the creation of new physics, new mathematics, new cosmology, new phenomenology, new ontology, and new epistemology.

In other words, the journal aims at the rapid and transparent publication of uniquely qualified original scientific ideas

and impetuses: anything that is counter-productive, parasitic, and artificial to the true spirit of genuine scientific judgement (no matter how trendy), such as the extremely pernicious and popular trends and developments in the superficial politics of today's scientism, is not recognized by it. In addition to substantiating and upgrading peer-review, the journal also strives to help improve fully the genuine open-access system in all possible ways. This is the firmest future model for any true future science and scientific organization, where the quality of an individual original scientific work alone can reflect the journal's over-all stance as a whole, not simply the very superficial, idiotic, logically and semantically flawed concoction of "citation-only impact factor" (based merely on the number of citations) misused by so many "illiterate" (essentially quality-blind and quality-devoid) pretentious people in the typical administration nowadays. The journal philosophy as a whole serves in many ways as an absolute separator between real science and artificial politics, between originality and imitation, between profundity and superficiality, between integrity and hypocrisy. Any reader or any institution is absolutely free to download the materials (papers and books) published by both *Progress in Physics* and *The Abraham Zelmanov Journal*.

The year 2015 also marks the 100th anniversary of Einstein's geometric theory of space-time and gravitation, the General Theory of Relativity, since the final formulation of the generally covariant Einstein's field equations of gravitation in the last quarter of 1915 (during a very tragic and difficult time of World War I). It goes without saying that this was achieved by Einstein almost at the same time as Hilbert's final formulation of the field equations of gravitation, an axiomatic, lone, and colossal problem Hilbert rather spontaneously worked on upon witnessing Einstein's Göttingen lecture on the (at that time agonizingly stifled) progress of the formulation of the theory during the same year. It took well over 8 years of one of mankind's greatest intellectual (philosophical, physical, mathematical) struggles towards synthesis in history for the greatly isolated, independent, original, and visionary young scientific creator — Albert Einstein — to complete the task since 1907 when he first attempted the logical extension of the Special Theory of Relativity (born in 1905) to include gravitation and more general reference frames under the umbrella of differential geometry and general covariance (first with the help of Einstein's friend, Marcel Grossmann, who helped select and qualify Riemannian geometry for Einstein's new physics program, and also of Tulio Levi-Civita and Hermann Weyl upon the later publication of the final form of General Relativity). This was not so long after Poincaré and Minkowski (among Einstein's own teachers) proposed a basic four-dimensional space-time structure for the world, which later became incorporated into Special Relativity, and into particle physics and group theory via algebraic symmetry classification. Today, as per differential geometry and topology, both Riemannian and non-Riemannian

geometry (such as Finsler geometry) can be used in General Relativity to understand better its geometric-folitional structure (such as Riemannian sub-manifolds and singular spaces) as well as its extensions (most ontologically and epistemologically unique, though, would be General Relativity's orthometric extensions — not just any extension — as I have alluded to elsewhere).

Understood initially by very few in the world — and now genuinely and profoundly understood (truly in-depth, not merely in the popular and prevalent context) still by very few — General Relativity as such is a universal scientific construct and superstructure equivalent to a pure work of visual and musical art and a novel philosophical edifice of ontology and epistemology. I therefore would like to salute the truly small number of the world's most dedicated and original scientists (absolutely indifferent to mere popularity) whose field of work encompasses General Relativity, gravitation, cosmology, and the unified geometric theory of space-time and the physical fields (fundamental extension of Einstein's theory): those who singularly live Einstein's theory of General Relativity and generally the Einsteinian ideology of the geometrization of space-time, matter, and fields, i.e. those with real creative contributions to the field (excluding mere "toy models") and not simply those very many who opportunistically make a living out of it by hijacking Einstein's theory and name. Congratulations to the rarest and most universal kind of scientific creators in Einstein's name: those few scientific creators in possession of insight and ideation, originality and profundity, solitude and singularity, of new ideas in the unmistakable footsteps of Einstein himself.

Again, a disclaimer — a song of epistemic suffering and near-despair, arising from a saddest line and event of alienation in science — is immediately at hand also. It is a sad, tragic fact that Einstein's name today has been hijacked, misappropriated, and misused in the said way by the throngs of aggressively narrow-minded and self-promoting scientific imitators and popularizers (and "launderers" of shallow scientific outputs, opinions, and hypernarrations) the world over: they typically and consensually announce a plethora of trivial toy models of physics and the Universe and (by the blind forces of "status quo" consisting of greedy and petty power grabbers, false opinion manufacturers, and all their stooges) often force and entrench them as prevailing dogmas while hiding rather cowardly and manipulatively behind Einstein's stature. Such is a patently false misuse of power and a trivial, empty concoction of prestige, and an epitome of great prevalent hypocrisy, amounting to the greatest corruption done in the name of science: a categorical scientific abuse by way of mere opinion-making, large political and financial backing, and all sorts of flawed prestige and opinion manufacture absolutely without (and in contrast to) the first-principle ontic-epistemic determination of scientific profundity, quality, and reality with all its reflexively self-evident intrinsic logic, semantics, and syntax. It is clear that Einstein himself would

never take the side of those professing such a dogmatic and popular position, let alone those who pathetically suffer from — what I always call — utter ontic-epistemic shallowness, solipsistic folly, sycophant opportunism, and hypernarration (see the previous scientific letter "Meta-Epistemic Determination of Quality and Reality in Scientific Creation" as to how to epistemically qualify real quality science as simply genuine science and to disqualify bad popular science and its politics as simply bad science). I and my colleagues disassociate ourselves forever, once and for all, from such people who are the latent enemies and cancers of science. We care solely about the subtle and sublime spirit of science and scientific creation, and of scientific-intellectual freedom, not all the flawed manufactures of politics and such contingency.

The above diseased situation, often fogged and misunderstood in popular venues, has to be clearly understood by not only those working fundamentally in Einstein's theory, but also those who have engendered a relative (or absolute) opposition to Einstein and General Relativity. The latter group of people with certain alternative views — which we certainly usually can tolerate as long as science is the objective — ought not to mistake the flawed-in-mind opportunistic hijackers of Einstein's name and theory for Einstein himself (and General Relativity), so as to very arbitrarily and short-handedly fume out "war against Einstein". They have to at least understand the semantics and hermeneutics of Einstein and General Relativity a little better than usual: not from the said hijackers (who have no ontological, substantial relation to Einstein whatsoever), but from the solitary few who are real Einsteinian experts and inheritors. The Zelmanov Cosmological Group would welcome anyone who wants to understand Einstein and General Relativity better in a different way, as to disclose that great light in a solitary, often dark and hidden, true cosmic lane.

Finally, I salute once again the truly intellectually free — true scientists, minds symphonically swarthed with the cosmos and ideas, like true poets and artists — anywhere on this Earth and in the cosmos, on the most unique joint birthday occasion and resonance of Einstein's General Relativity and *Progress in Physics*.

Dedicated to Grisha Perelman and all the (few) truly free, courageous, revolutionary minds in the world of science. And to professors Brian Josephson and Sydney Brenner, and the late Joseph C. Hafele, from a silent observer on a distant but immediate star, as was Einstein unto Spinoza and as was Newton unto Copernicus: "... as this song of truth, this utter knowing — the poem — falls to the beautiful soul as dew to grass" (Pablo Neruda).

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